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6-NEWLO,  
17A-

NAVAL UNDERSEA WARFARE CENTER,  
BOWDITCH HALL  
(Naval Undersea Warfare Center,  
Building No. 34)  
600' east of Smith Street and 350' south of  
Columbia Cove, West bank of Thames River,  
New London  
New London County  
Connecticut

HAER No. CT-180-A

#### PHOTOGRAPHS

#### WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD  
National Park Service  
Northeast Region  
Philadelphia Support Office  
U.S. Custom House  
200 Chestnut Street  
Philadelphia, Pennsylvania 19106

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# HISTORIC AMERICAN ENGINEERING RECORD

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Location: 600' east of Smith Street and 350' south of Columbia Cove,  
west bank of the Thames River. New London, New  
London County, Connecticut.

USGS New London, CT Quadrangle  
Universal Transverse Mercator Coordinates  
18.743090.4580900

Date of Construction: 1943.

Architect: Alfred A. Hopkins, New York, New York.

Present Owner: Caretaker Site Office, Naval Facilities Engineering  
Command, Northern Division.

Present Use: Vacant. Last used as a photographic lab, office space and  
record storage space.

Significance: Planned and built by the U.S. Maritime Commission as part  
of the Officers Service School, Bowditch Hall was built to  
provide classroom and auditorium space for the school. In  
later years it housed a variety of laboratories and computing  
spaces. It is significant as a key element of the World War  
II Maritime Officer's School and as laboratory space used  
during the Cold War.

Project Information Statement: Bowditch Hall is one of a group of buildings that is  
proposed for demolition subsequent to the U.S. Navy's  
disposal of this base. To mitigate the adverse effect of the  
proposed demolition, the SHPO stipulated documentation  
of the structure.

Project Historian Steven Bedford Ph. D., Fitzgerald & Halliday, Inc.,  
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Summary Description of Bowditch Hall

Bowditch Hall is located near the eastern boundary of the Naval Undersea Warfare Center. Resting on a concrete foundation, this hip-roofed, T-shaped, Federal Revival-style building consists of a three-story northern section (approximately 120' x 45'), with a double-height auditorium (75' x 65') forming the lower section of the T. The building's exterior is clapboard. Every corner of the building is denoted by simple wooden Tuscan pilasters or narrow corner boards.

Exterior

The massive, multi-bay, three-story north facade is dominated by approximately 60 8/8 double-hung-sash windows and wide clapboards. Approximately 6" of each clapboard shows to the weather. The windows are grouped in pairs. Each window surround is articulated in a Federal Revival manner with false keystones and double molding united by plain, wide, blocks. A string course unites the sills of the third floor windows. The hipped roof is topped by small louvered monitors with steep hipped roofs.

The western facade of the northern section of the building continues the pattern established on the northern side. However, this portion of facade has been altered. The southern pair of windows on the second floor has been removed, replaced by clapboard and ventilator fans, while other portions of the facade have been pierced by vents for interior fan-coil units.

A one-story, one-bay projection at the southwest corner of the northern section of the building provides access by means of double doors topped by a large transom. The southwestern facade of the northern section of the building continues the pattern established on the rest of the northern section.

An auditorium, known as Columbus Hall, forms the southerly leg of the T-shape of the building. This double-height space is articulated on the exterior by double-height, arched windows. The windows have moulded surrounds topped by false keystones. The lower section of each arched window is bifurcated, creating pairs of 9/9 double-hung sash windows. Access to the auditorium is provided by paired paneled doors that truncate the central window in the east and west facades of the auditorium. The doors are surmounted by prominent horizontal cornices. Like the northern section of the building, louvered monitors atop the hipped roof provide ventilation to the interior space.

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With one exception, the southeastern facade of the northern section of Bowditch Hall repeats the general massing of its counterpart on the western side of the building. It projects forward from the main mass of the structure by approximately 12', creating a hipped roof pavilion.

The eastern facade of the northern section of the Bowditch Hall also projects forward to accommodate the main entry and stairway for access to the upper floors of the building. The one-story, three-bay, projecting entry pavilion is decorated with simple Tuscan pilasters surmounted by a plain entablature. The central entry, consisting of a panelled door, is flanked by 8/8 windows. The upper stories of the rest of this facade are virtually blank, reflecting its internal function as a stair.

### Interior

The interior of the structure is laid out in a straightforward manner. The plan of the northern section consists of three floors of double-loaded corridors that provide access to offices and laboratories of various sizes, while the southern section of the building is given over entirely to Columbus Hall, a 400-seat auditorium.

The interior finishes of the northern section of Bowditch Hall uniformly consist of walls of painted gypsum board and ceilings of dropped acoustical tile. The floor coverings are either carpet or vinyl flooring. Some rooms on the first and second floors still retain small laboratory benches and the remnants of photographic laboratories, while other rooms retain record storage equipment, indicating their most recent use. In the northwest corner of the building is a slope-floored classroom that seats approximately 70 individuals.

The interior of Columbus Hall is a large, sloped open space with a proscenium arch stage at its northern end and a raised projection booth placed along the southern wall. The proscenium is classically decorated with panelled corner pilasters supporting a stylized Ionic entablature. Massive built-up wood Pratt trusses support the roof. The interior of each window frame is decorated with a blind arch surmounted by a classicised horizontal cornice. Blind panels provide further decoration to the wall space between the windows. Large diameter circular metal light fixtures provide general illumination in Columbus Hall. Their rims are decorated with a Greek Key motif.

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Historical Information

Bowditch Hall was one of 21 buildings built during 1943 to house the U. S. Maritime Commission's Officers Service School. The Officers Service School was originally conceived in 1938 as one of two schools in the country where Merchant Marine officers would be trained (the other was planned for the west coast). The massive increase in shipping required to meet the needs of the war in Europe and the Pacific, coupled with losses incurred by German U-Boats, created a huge demand for trained merchant ship's officers.<sup>1</sup> This need accelerated the development of the New London site. In 1943, three tracts of land immediately north of the pre-existing military reservation were purchased and designs for the necessary structures were simultaneously developed by the New York architectural firm of Alfred H. Hopkins and Associates.<sup>2</sup> By early 1943, the buildings were completed and in use by the Officers Service cadets. The site, then known as Fort Trumbull, was filled with 2,000 cadets and a staff of 750.<sup>3</sup>

Like many of the buildings in the Officers Service School, the building was named after an important American navigator, Nathaniel Bowditch (1773-1838), the author of the famous navigation text The New American Practical Navigator (1802). Bowditch Hall housed classrooms, but it also was designed with a large auditorium, Columbus Hall.

It is not known exactly what was taught in the particular rooms of Bowditch Hall, but most officers received training in navigation, radio communication, and maritime engineering, as well as

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<sup>1</sup> The history of the Maritime Commission's Officers Service School is briefly synopsized in John Merrill and Lionel Wyld, Meeting The Submarine Challenge: A Short History of the Naval Underwater Systems Center (Washington, D.C.: GPO, 1997): pp. 7-8.

<sup>2</sup> All material relative to the creation of the Maritime Officer's School can be found in the National Archives, Records of the United States Coast Guard, RG 26, Real Estate files Box 9-NC-31.

<sup>3</sup> Figures are quoted in: U.S. Department of the Navy, Naval Facilities Engineering Command, Northern Division, "Cultural Resources Survey, Naval Undersea Warfare Center," prepared by TAMS Consultants, Inc. and Historical Perspectives, Inc. (Connecticut Historical Commission, 1999, photocopy), pp. 3-45 to 3-47.

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other aspects of seamanship. The auditorium was used for large lectures and the occasional play. By the end of World War II, over 15,000 Merchant Marine officers had received training at Fort Trumbull.<sup>4</sup>

At the end of World War II, Bowditch Hall was turned over to the U. S. Coast Guard. In 1946, Raymond E. Baldwin, Governor of Connecticut, requested the use of the former Officers Service School as a satellite campus for the University of Connecticut. On June 16, 1946, the Coast Guard granted the state a five year permit to use the facilities as a satellite campus for some 2,000 new students. Bowditch Hall was one of the buildings used by the University until May 1950, when the former Officers School buildings were taken over by the U.S. Navy to provide more space for the neighboring Underwater Sound Laboratory.<sup>5</sup>

Bowditch Hall accommodated a variety of uses over the next 38 years. Initially, the Underwater Sound Laboratory's technical library occupied the ground floor, while most of the second floor was converted for use by the stenography pool. Other parts of the building were used for a crystallography laboratory. In 1954, a radar set was installed on the roof and the eastern portion of the second floor was used to beam confidential infrared displays to submarines as they passed out of New London harbor on their way to sea.<sup>6</sup>

By 1955, the library was moved out of the building and the first floor was converted to laboratory research space for sonar research and "new developments". The north side of the second floor then contained the mechanical design and drafting studios, while the third floor housed the electronic design and drafting studios. In 1956, the south side of the second floor was remodelled to house the Underwater Sound Laboratory's first computer, an IBM Datatron 205, which served the entire Laboratory's computing needs until 1961, when it was replaced with an IBM Model 704 main frame computer.<sup>7</sup>

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<sup>4</sup> Ibid.

<sup>5</sup> See National Archives, Records of the United States Coast Guard, RG 26, Real Estate files Box 9-NC-31.

<sup>6</sup> See individual building files on file at the Caretaker Site Office at the Naval Undersea Warfare Center, New London, Connecticut.

<sup>7</sup> Ibid.

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As more and more new buildings were built specifically for laboratory and design uses, more sections of Bowditch Hall were converted to administrative use and record storage. The building was renovated several times between 1970 and 1980. In 1985, all computing facilities were moved to Building 96, and Bowditch Hall was then used entirely for administrative purposes, housing the mail room and photo labs.<sup>8</sup>

Columbus Hall was in fairly regular use between 1950 and 1998. Continuing the pattern established when it was part of the Officers School, Columbus Hall was the location of large lecture courses on such as topics as "An Introduction to SONAR," and was used by the Laboratory's amateur theatrical group for staging productions.

Alfred Hopkins

Bowditch Hall was designed by the well-known New York architectural firm of Alfred Hopkins and Associates. Hopkins (1870-1941) received his architectural training at the Ecole des Beaux-Arts in Paris. By 1902, the year in which his essay on farm barns appeared in the Architectural Review, he was already recognized as an expert in the design of groupings of farm buildings for the estates of the very wealthy, having already created complexes for F.W. Vanderbilt in Hyde Park, New York, and Otto Kahn in Morristown, New Jersey.

Hopkins' firm subsequently specialized in the design of these complexes, creating some 15 farm groups on New York's Long Island alone. By 1920, Hopkins had also published the definitive treatise on the the subject: Modern Farm Buildings. As the market for such elaborate complexes began to wane following World War I, Hopkins' firm switched specialties and turned to designing penal institutions. The firm designed the New York State Penitentiary at Wallkill, as well as the federal penitentiaries at Terre Haute, Indiana, and Lewisburg, Pennsylvania. In 1935, Hopkins headed President Roosevelt's delegation to the international prison conference in Berlin. Hopkins' firm was well-suited to the commission for the Officers School.

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<sup>8</sup> U.S. Department of the Navy, Naval Facilities Engineering Command, Northern Division, "NUWC Comprehensive Master Plan," (Naval Undersea Warfare Center, Newport, Rhode Island, photocopy, 1985), passim.

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Farm buildings, prisons and schools all require the tight coordination of a large number of different activities. Organization was of the essence, and Hopkins' firm managed to create an entire campus in a very small space.<sup>9</sup>

Significance

Bowditch Hall is significant as representative of the substantial wartime expansion of the base to accommodate the needs of thousands of trainees in the Maritime Commission's Officers Service School. It was later an essential part of the Cold War-related research complex at Naval Undersea Warfare Center. Its exterior is in an extremely good state of preservation and is the most architecturally interesting of all the buildings associated with the Officers Service School.

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<sup>9</sup> This short biography is based on that found in MacKay, Baker and Traynor, Long Island Country Houses and Their Architects, 1860-1940 (New York: Norton, 1997): pp.215-218.



## SOURCES OF INFORMATION/BIBLIOGRAPHY

### A. Engineering Drawings

Dozens of drawings of Bowditch Hall are now located in the files of the Caretaker Site Office, Naval Undersea Warfare Center, New London. Included in the collection are "as-built drawings of the building in 1943, as well as drawings of most of the alterations between 1943 and 1997.

### B. Historic Views

Historic Views of Bowditch Hall are located in the building files of Caretaker Site Office, Naval Undersea Warfare Center, New London. Most of the views date from 1950 to 1960.

### C. Bibliography

#### 1. Primary and Unpublished Sources

Individual Building Files, now located in the files of the Caretaker Site Office, Naval Undersea Warfare Center, New London.

Records of the U.S. Coast Guard, Record Group 26, National Archives.

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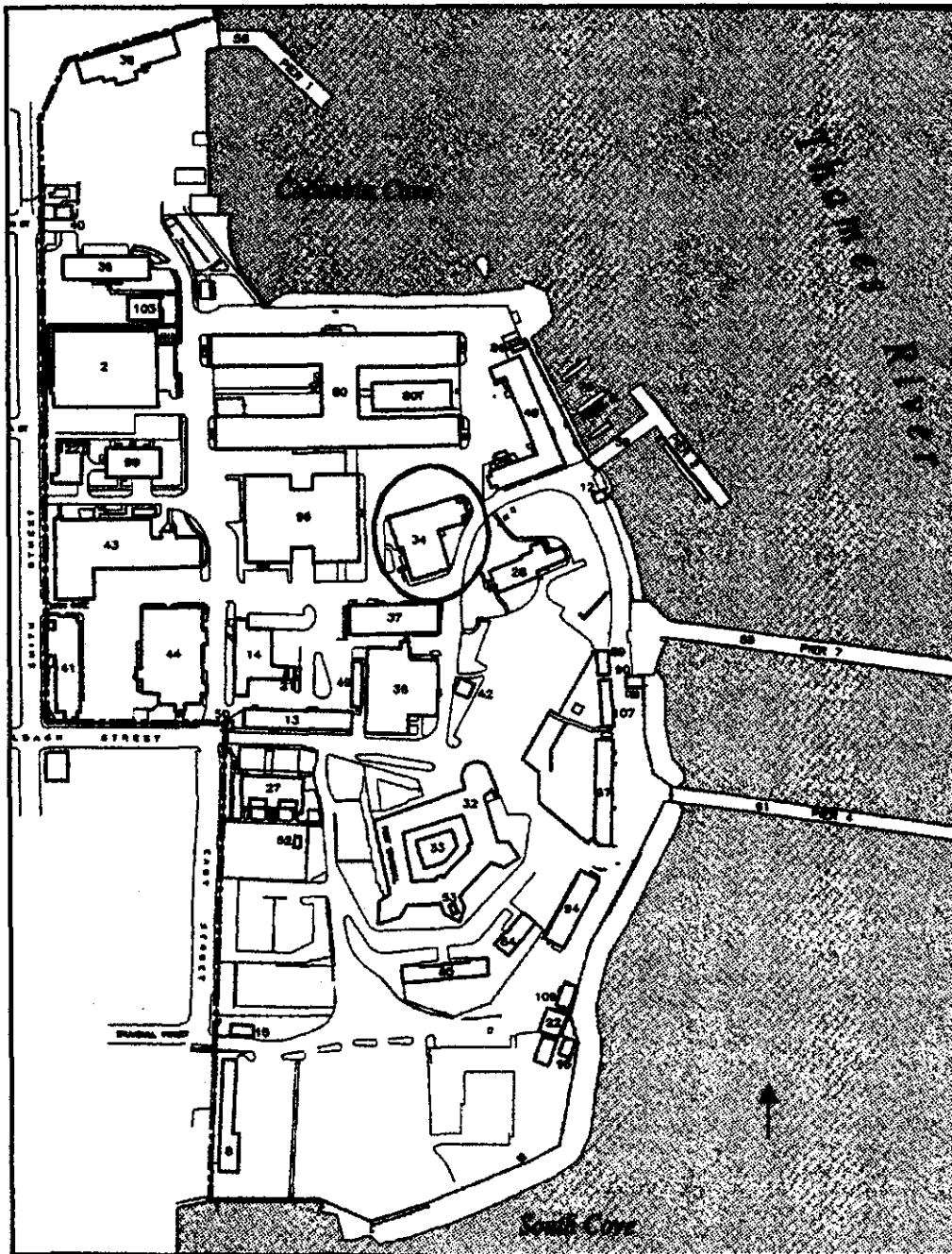
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MacKay, Baker, and Traynor. Long Island Country Houses and Their Architects, 1860-1940. New York: Norton, 1997.

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SITE MAP



Not to scale. Source: U.S. Department of the Navy files. Copyright-free.